

## **Listing and Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 1-18. (cancelled)

1 19. (new) A control device for extending an effective control range of a first  
2 control device for controlling an IR controllable device, the control device comprising:  
3 a receiver for receiving from the first control device a first control signal having a  
4 first data segment for control information; and  
5 means for extracting an IR carrier frequency from the first control signal and  
6 means for transmitting a RF signal having a second data segment for the control  
7 information and the IR carrier frequency, wherein the RF signal is adapted to be  
8 received by a second control device that converts the RF signal into an IR control signal  
9 for controlling the IR controllable device, the IR control signal having an IR carrier with  
10 the IR carrier frequency and having a data segment for the control information.

1 20. (new) The control device of claim 19 wherein the IR carrier frequency is  
2 included in the first data segment of the first control signal and the receiver identifies  
3 the IR carrier frequency by extracting a portion of the first data segment designating the  
4 IR carrier frequency.

1 21. (new) The control device of claim 20 wherein the first control signal is a RF  
2 signal.

1 22. (new) The control device of claim 20 wherein the portion of the first data  
2 segment designating the IR carrier frequency is at least four bits long.

1 23. (new) The control device of claim 19 wherein the first control signal is an IR  
2 signal.

1 24. (new) The control device of claim 23 wherein the first control signal is  
2 transmitted with an IR carrier and the extracting means extracts the IR carrier frequency  
3 by determining a frequency of the IR carrier.

1 25. (new) The control device of claim 23 wherein the transmitting means does  
2 not transmit the IR carrier.

1 26. (new) The control device of claim 19 wherein the RF signal is amplitude shift  
2 keying modulated.

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1 27. (new) The control device of claim 19 wherein the RF signal can be received  
2 by a plurality of second control devices with respective controllable devices.

1 28. (new) The control device of claim 19 wherein the first control device is  
2 disposed in a common housing with the control device.

1 29. (new) The control device of claim 19 wherein a power supply of a stage of  
2 the transmitting means is modulated by a version of the first control signal.

1 30. (new) The control device of claim 29 wherein the power supply is modulated  
2 by 100 percent signal output capability from the first control device.

1 31. (new) The control device of claim 29 wherein the power supply is modulated  
2 by less than 100 percent signal output capability from the first control device.

1 32. (new) The control device of claim 29 wherein the transmitting means is  
2 overmodulated and has a duty cycle "on" time which is shorter than an "off" time.

1 33. (new) A control device for extending an effective control range of a first  
2 control device for controlling an IR controllable device, the control device comprising:

3 a RF receiver for receiving from the first control device a RF control signal having  
4 a data segment for control information and an IR carrier frequency, wherein the IR  
5 carrier frequency is extracted by the first control device from a received IR control signal  
6 having the IR carrier frequency; and

7 an IR transmitter for transmitting a first IR control signal for controlling the IR  
8 controllable device, the first IR control signal having a data segment for the control  
9 information and having a carrier with the IR carrier frequency.

1 34. (new) The control device of claim 33 wherein the RF control signal  
2 corresponds to the received IR control signal.

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2 35. (new) A control device for extending an effective control range of a first  
control device for controlling an IR controllable device, the control device comprising:

3 a receiver for receiving from the first control device a first control signal having an  
4 IR carrier frequency and having a data segment for control information, wherein the  
5 receiver extracts the IR carrier frequency from the first control signal; and

6 an IR transmitter for receiving the extracted IR carrier frequency and transmitting  
7 an IR control signal for controlling the IR controllable device, the IR control signal  
8 having a data segment for the control information and having a carrier with the  
9 extracted IR carrier frequency.

1 36. (new) The control device of claim 35 wherein the first control signal is an IR  
2 signal.

1 37. (new) A control device for controlling an IR controllable device, the control  
2 device comprising:

3 a transmitter for transmitting a first control signal having an IR carrier frequency  
4 and a data segment for control information, wherein the first control signal is adapted to  
5 be received by a second control device that extracts the IR carrier frequency and

6 produces an IR control signal having a data segment for the control information, and  
7 having a carrier with the extracted IR carrier frequency.

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conc.* 1 38. (new) The control device of claim 37 wherein the data segment is at least

2 four bits long.

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